



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|--------------------------|------------------|
| 10/074,207 | 02/12/2002 | Charles E. Taylor | SHPR-01041USN SRM/SDS | 5944 |
| 23910 | 7590 | 07/15/2004 | EXAMINER | |
| FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111 | | | TRAN, THAO T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1711 | |

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,207

Applicant(s)

TAYLOR ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-29 and 31-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-29 and 31-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This is in response to the Amendments filed on April 12, 2004. The new Oath and Declaration received on April 12, 2004 is acknowledged.
2. Claims 1-6, 8-29, 31-44 are currently pending in this application. Claims 7 and 30 have been canceled.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-6, 8-29, 31-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 95-97 of copending Application No. 10/074,082. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the copending Application contain the

subject matter that is narrower in scope than the instant claims, rendering them obvious over each other.

Claim 95 of the copending Application includes all of the limitations recited in the instant claims 1, 24, and 34. Claim 95 of the copending Application further teaches an array of leading electrodes located upstream of a first array of electrode, making the claims of the copending Application narrower in scope than the instant claims. Therefore, the scope of the instant claims encompasses that of the claims of the copending Application, rendering them obvious over each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

5. In view of the prior Office action of October 06, 2003, the objection of claim 14 has been withdrawn due to the Amendment made thereto.
6. In view of the prior Office action of October 06, 2003, the objection of claim 14 has been withdrawn due to further consideration.

Claim Rejections - 35 USC § 102

7. In view of the prior Office action of October 06, 2003, the rejection of claims 1, 4-5, 8-24, 27-28, 31-37, 39-43, under 35 U.S.C. 102(b) as being anticipated by Lee (US Pat. 4,789,801), has been withdrawn due to the Amendments made thereto.

8. In view of the prior Office action of October 06, 2003, the rejection of claims 1, 4, 8-19, 21-24, 27, 31-32, 34-43, under 35 U.S.C. 102(b) as being anticipated by Sakakibara et al. (US Pat. 4,643,745), has been withdrawn due to the Amendments made thereto.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. 1-6, 8-29, and 31-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Pat. 4,789,801).

Lee teaches a loud speaker (electro-kinetic air transporter-conditioner) which comprises an ion generator; the ion generator comprising an array of first electrodes 60', an array of second electrodes 58', and interstitial electrodes 62' interposed between second electrodes. The second electrodes having a leading portion and a trailing portion downstream of the leading portion, and the interstitial electrodes are shorter than the second electrodes. A voltage generator 12 coupled to the first and second electrodes, creating an airflow from the first to the second electrodes (see Figs. 1-3, col. 6, ln. 12-29).

In regards to claims 1, 6, 29, and 44, in light of the specification and the drawings, the examiner is interpreting that the interstitial electrodes are being connected to the second electrodes. Lee does not teach the interstitial electrodes being connected to the second electrodes or that these electrodes would have the same polarity. However, Lee teaches the interstitial

Art Unit: 1711

electrodes to be grounded and that the use of the interstitial electrodes would increase precipitation efficiency (see col. 6, ln. 33-40).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the interstitial electrodes being connected to the second electrodes, because this would be functionally equivalent and would give the same effects as the interstitial electrodes to be grounded.

In regards to claims 2-3 and 25-26, Lee teaches the interstitial electrodes to be wire-shaped (see Fig. 3), but Lee does not teach the second electrodes to be fin-shaped.

However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the configuration of the electrode would have been a matter of design choice, that would bring forth maximal benefits attendant therewith. A fin shape would increase the surface area of the electrodes and hence would enhance the removal of ion particles in the air.

In regards to claims 5, 8-10, 20-23, 31-33, 36-37, 39-43, Lee further teaches the interstitial electrodes to be wire-shaped or rod-shaped, and that the first electrodes emit negatively charged ions whereas the second electrodes are ion collectors. The interstitial electrodes are grounded. (See Fig. 3).

In regards to claims 11-12, 16-19, with respect to how the second electrodes would be removable and as to the purpose of removing the electrodes, it has been within the skill in the art that the manner of operation and intended use would have little patentable weight when an apparatus claim is being considered. See MPEP 2114.

Art Unit: 1711

11. Claims 1-6, 8-29, and 31-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara et al. (US Pat. 4,643,745).

Sakakibara teaches an air cleaner (air conditioner), comprising an ion generator, which comprises an array of first electrodes 11; an array of second electrodes 32'; and an array of interstitial electrodes 31' interposed between the second electrodes (see Fig. 9). The first electrodes are pin-shaped, and the interstitial electrodes are slightly shorter in length than the second electrodes.

In regards to claims 1, 6, 29, and 44, in light of the specification and the drawings, the examiner is interpreting that the interstitial electrodes are being connected to the second electrodes. Sakakibara does not teach the interstitial electrodes being connected to the second electrodes or that these electrodes would have the same polarity. However, Sakakibara teaches the interstitial electrodes to be grounded and that the use of the interstitial electrodes would increase precipitation efficiency (see col. 6, ln. 61 bridging col. 7, ln. 3; claim 1).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the interstitial electrodes being connected to the second electrodes, because this would be functionally equivalent and would give the same effects as the interstitial electrodes to be grounded.

In regards to claims 2-3, 5, 20, 25-26, 28, and 33, Sakakibara does not teach the second electrodes to be fin-shaped nor the interstitial electrodes wire-shaped, or rod-shaped.

However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the configuration of the electrode would have been a matter of design choice, that would bring forth maximal benefits attendant therewith. A fin shape would increase

Art Unit: 1711

the surface area of the electrodes and hence would enhance the removal of ion particles in the air. And a rod shape would leave more room between the second electrodes for the air to move through.

In regards to claims 11-12, 16-19, with respect to how the second electrodes would be removable and as to the purpose of removing the electrodes, it has been within the skill in the art that the manner of operation and intended use would have little patentable weight when an apparatus claim is being considered. See MPEP 2114.

Response to Arguments

12. Applicant's arguments filed on April 12, 2004 have been fully considered but they are not persuasive.

Throughout the Remarks, Applicants contend that neither Lee nor Sakakibara teaches the interstitial electrode having the same polarity with the first electrode. This contention is correct. However, as well known in the art, the polarity of an electrode and how the electrodes are connected to each other could be adjusted according to intended use and user's preference.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 1711

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

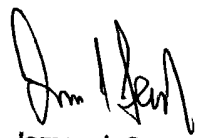
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tt

tt

July 12, 2004


James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700